THE PACIFIC FOREST TRUST

Forests, Climate and the CCAR: The Van Eck Project

A Presentation for:
California Air Resource Board
September 2007

The Pacific Forest Trust

Sustaining the Public Benefits of Private Forests

Private forests.
Public treasures.

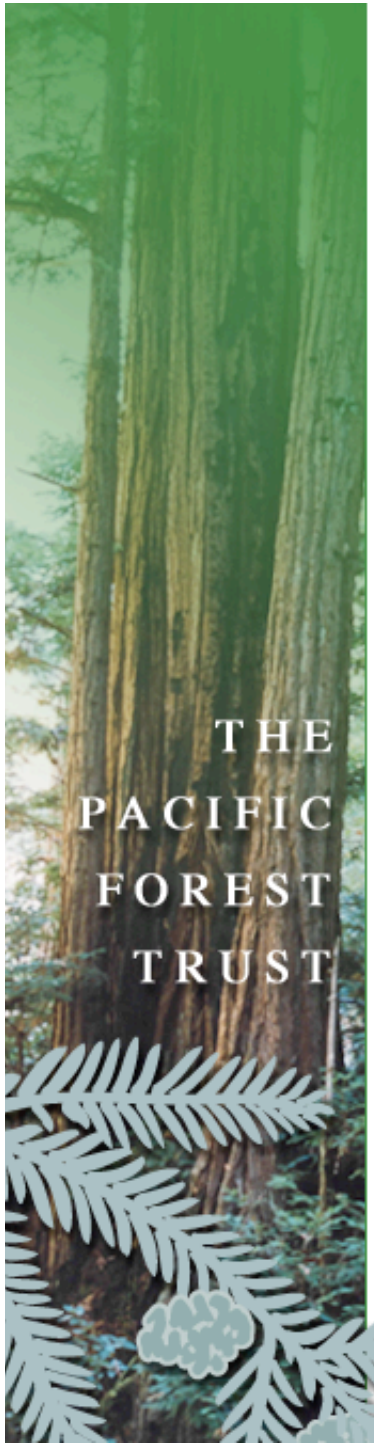
- Aligning ecological needs with economic realities
- Developers of conservation markets
- Authors of *America's Private Forests: Status and Stewardship*

The Pacific Forest Trust

Expert on Climate Benefits of Forests

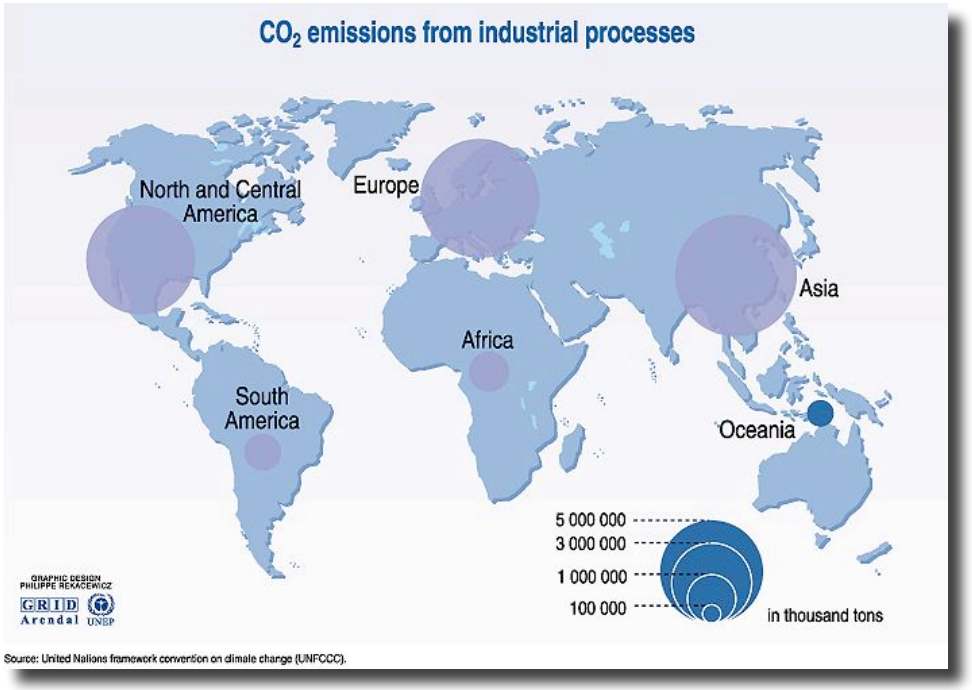
- Advised federal and state governments since 1994
- Key player in CCAR forest protocol

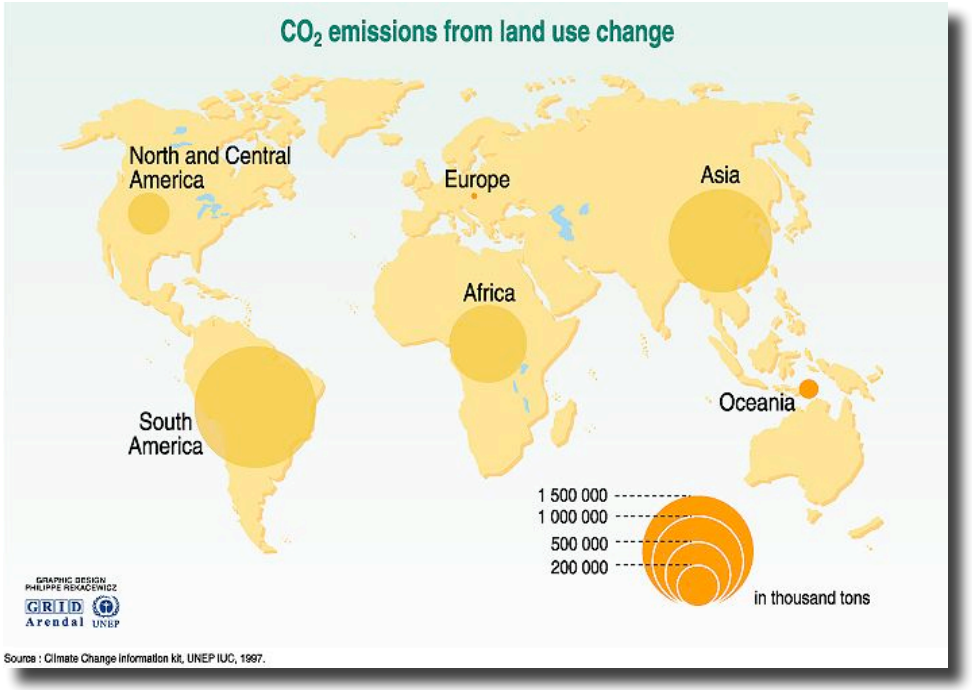
- 1605b program, WRI/WBCSD protocols, WestCarb project with DOE
- 1st US commercial transactions; 1st CA Registry emissions reduction project (2006)



Two Key Sources: Fossil Fuels and Land Use Change

- Forest loss and change is the primary component of land use change, over 90%.
- CO2 emissions reductions from fossils fuels, forests and cement are the keys to success





Forests are a Source of Global CO_2 Emissions

- Forests = 1/3 of earth land base. 1/2 lost 1700-2000. Forest change responsible for over 40% of historic CO_2 emissions

- Forest change currently contributes 25% of global CO_2 emissions. Equals CO_2 emissions from 1.4 billion cars annually

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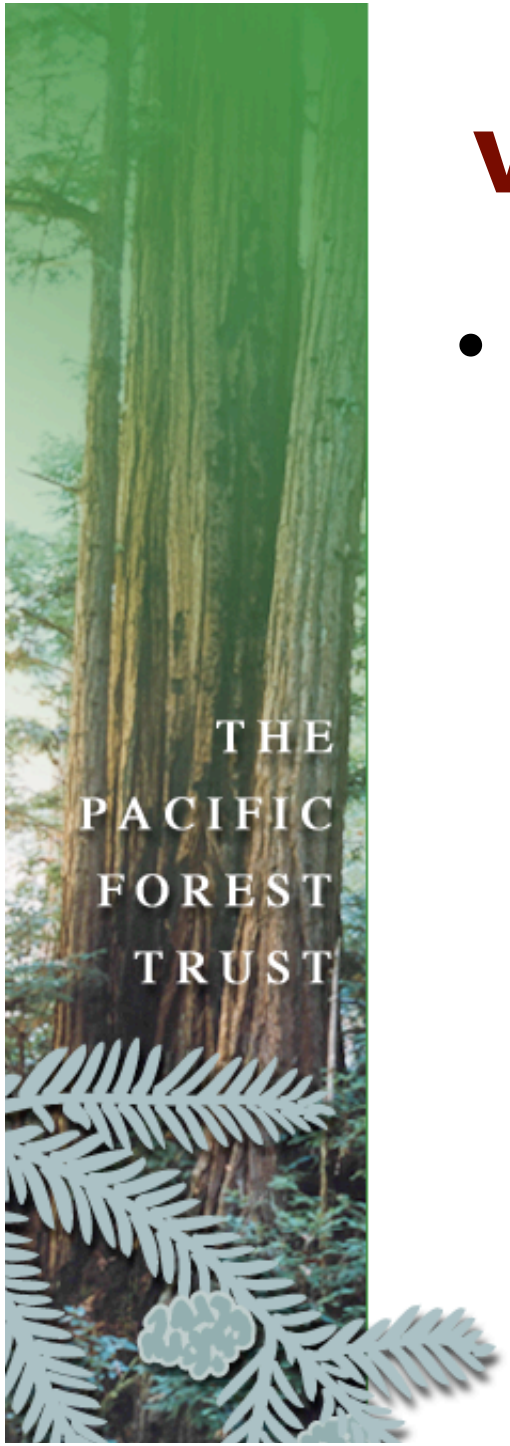
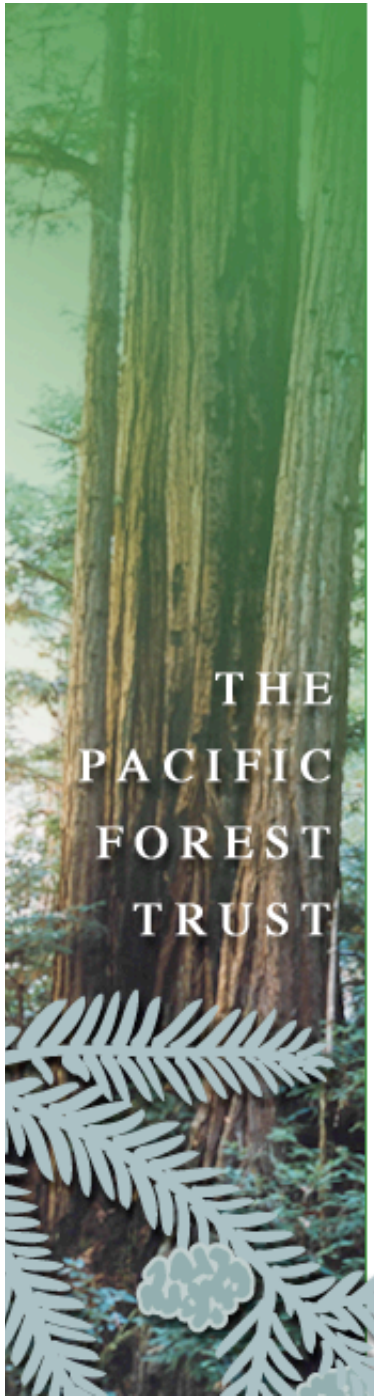
U.S. is part of the problem

- 1.5 million acres of private forest lost annually
- Losing more forest than in 100 years
- Overall C stores in today's forests are depleted compared to their biological capacity
- California no exception: over 35,000 acres/year

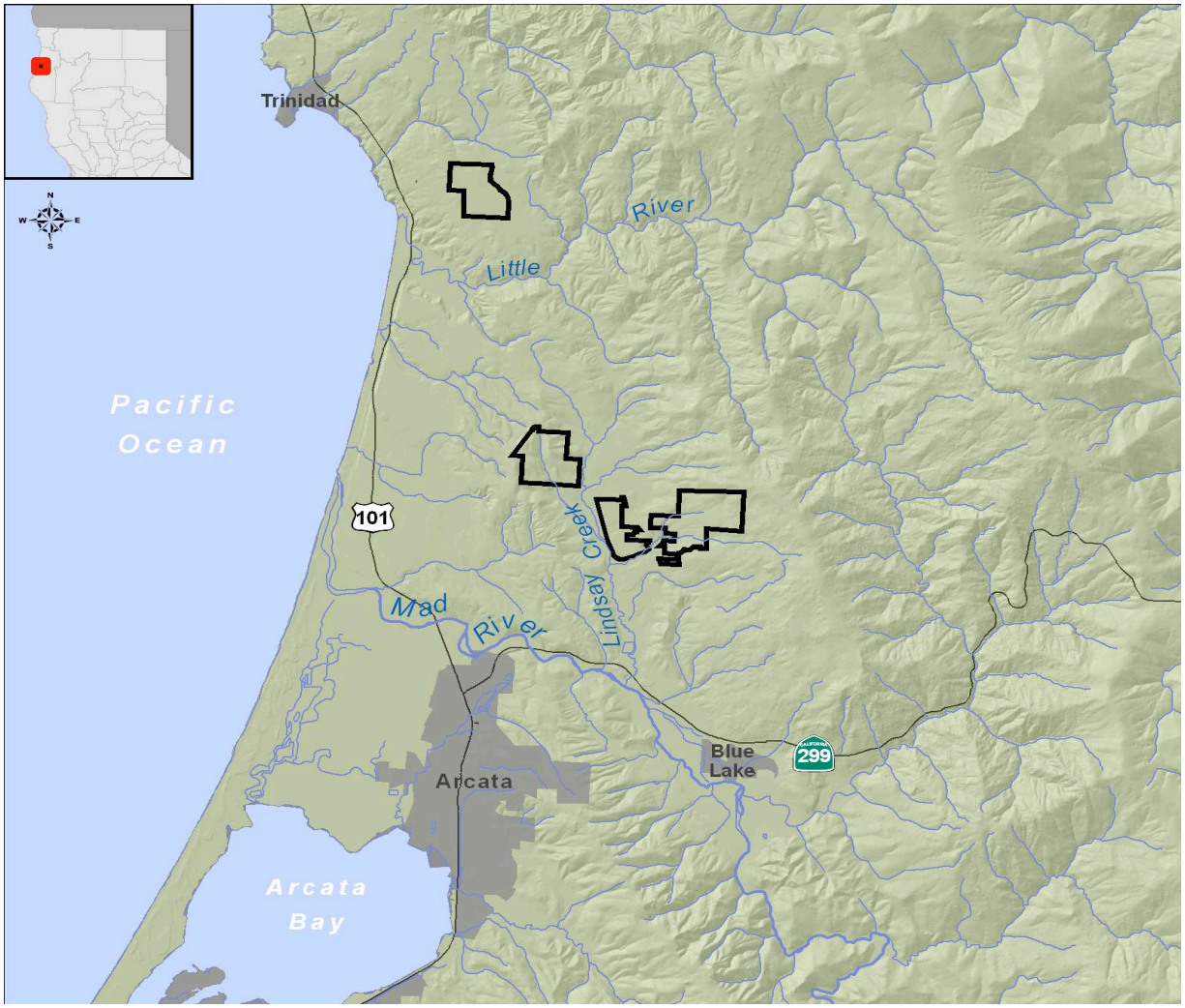


Van Eck Forest Project

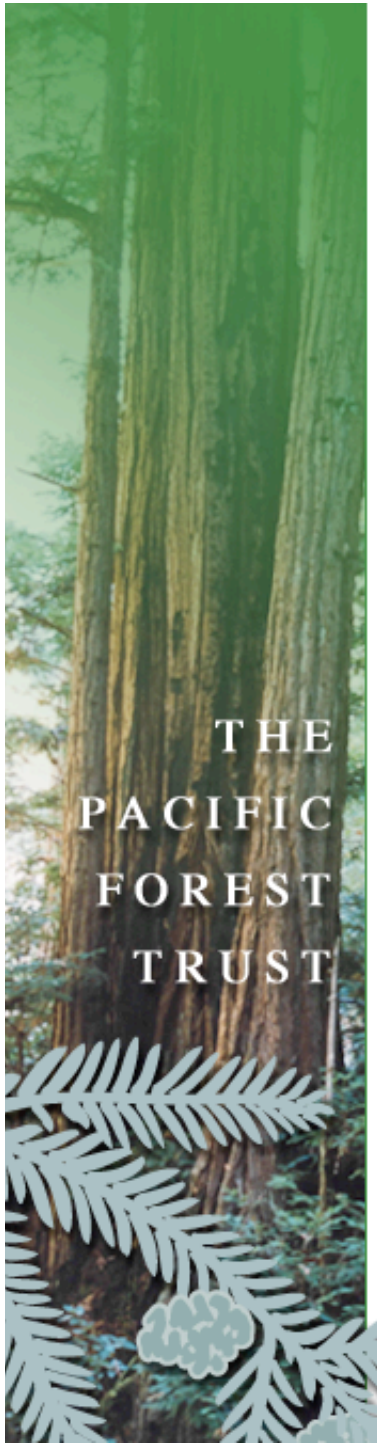
- First emissions reduction project registered under the California Climate Action Registry's Forest Protocols
  - 2,100 acres of conserved redwood forest in Humboldt County
  - 500,000+ additional tons CO2 stored over 100 years
  - Forest managed by PFT
  - Project certification fall 2007



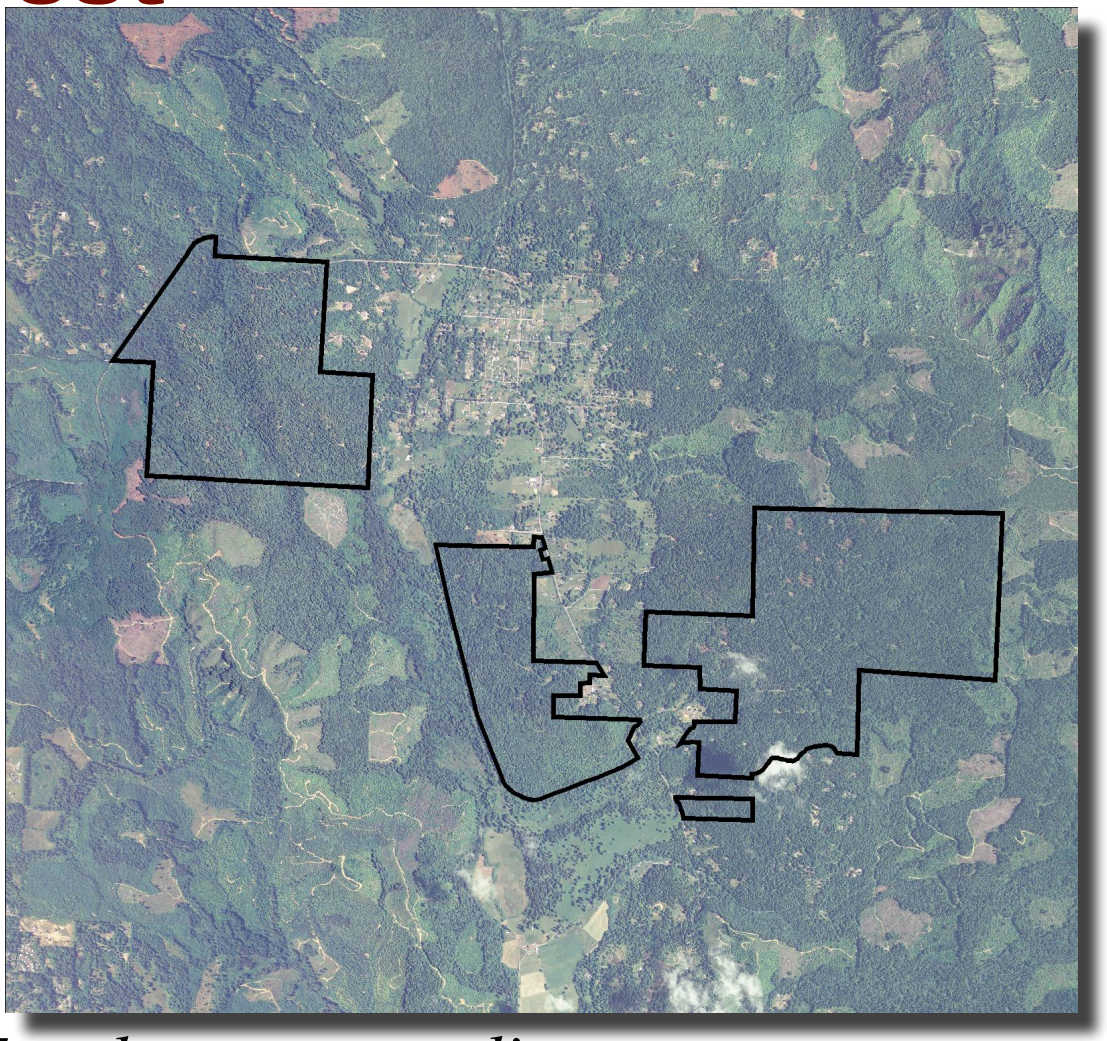
The van Eck Forest: CCAR Forest Management Project



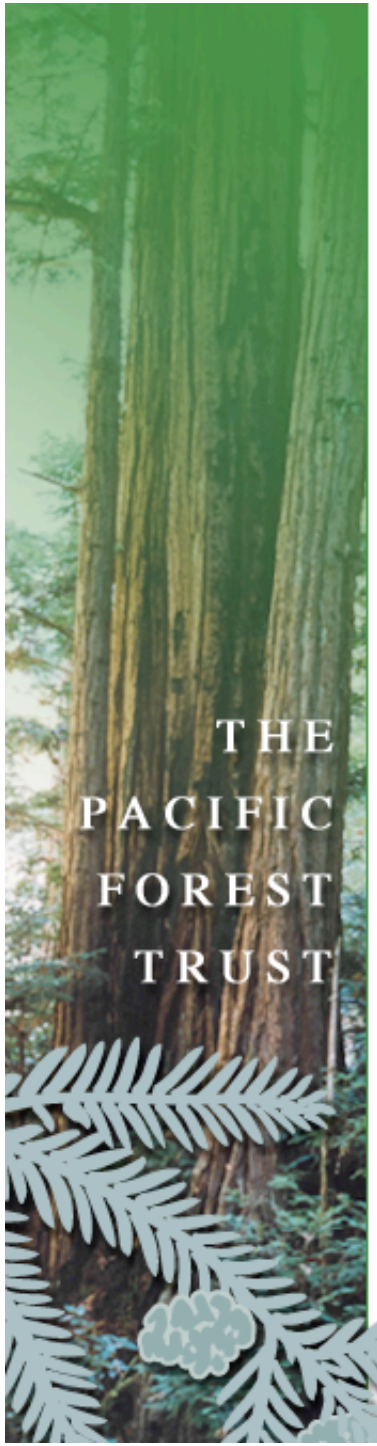
2,100 Acres, Humboldt County. Harvested annually: 1,000,000 BF in annual timber harvest



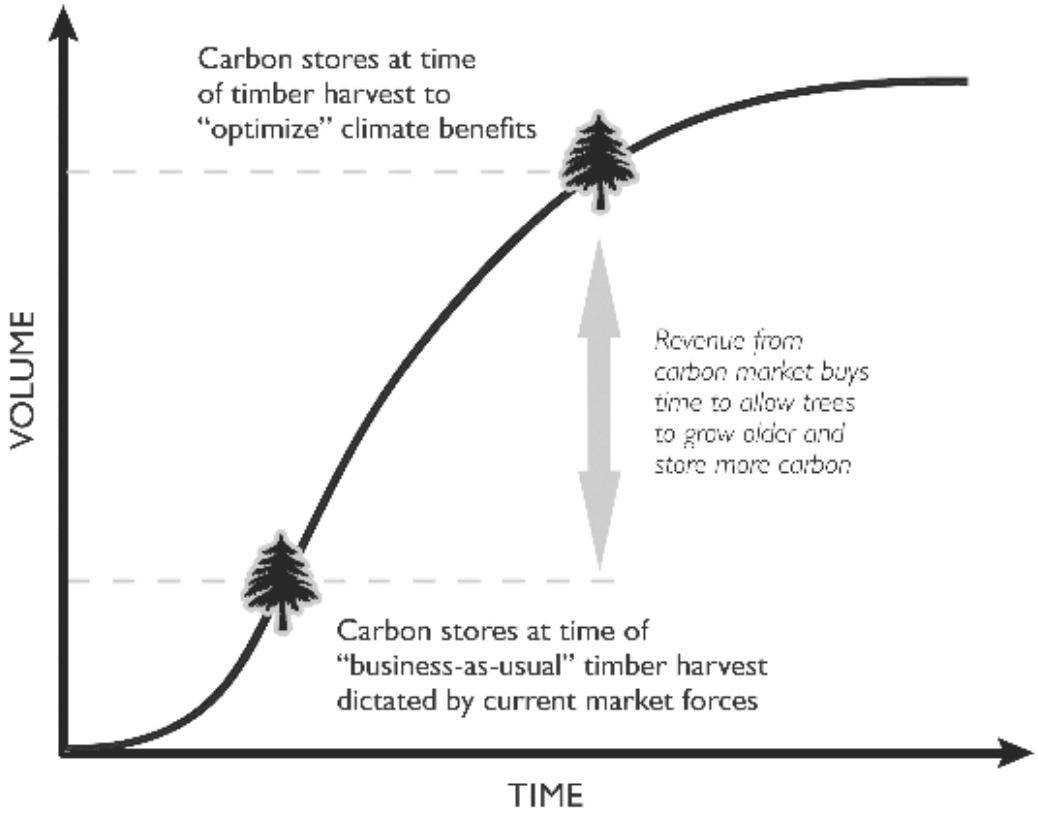
Landscape Context: van Eck Forest



Two key surrounding uses: development, intensive forestry

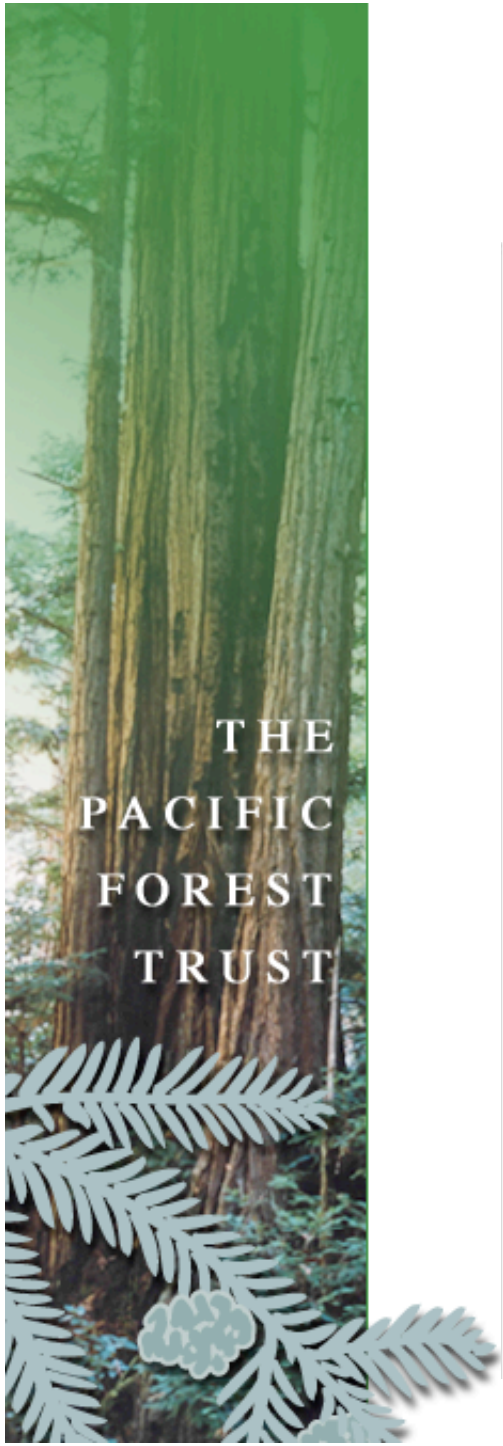


The Basic Strategy:
Increase the Principle and increase the Yield

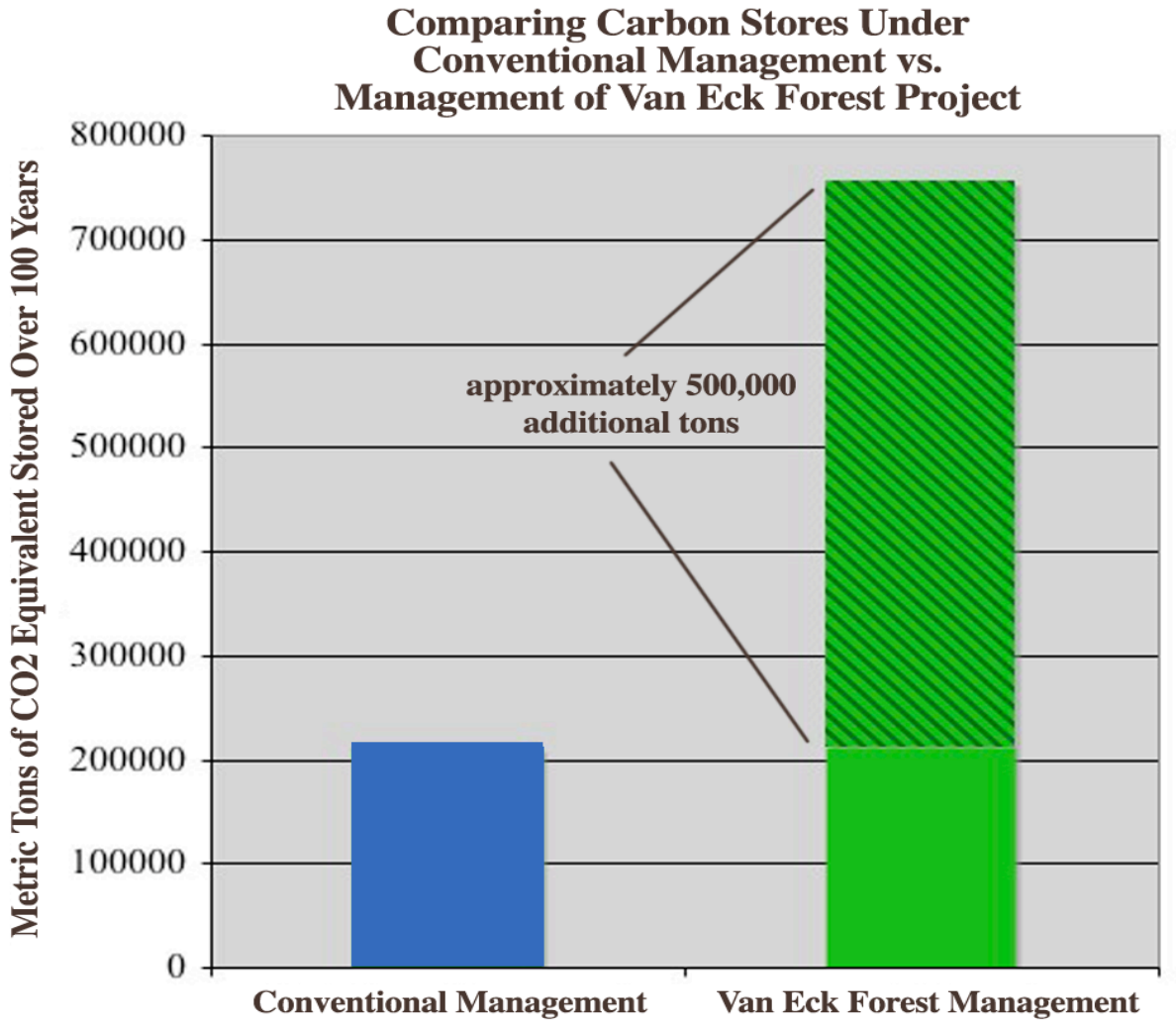


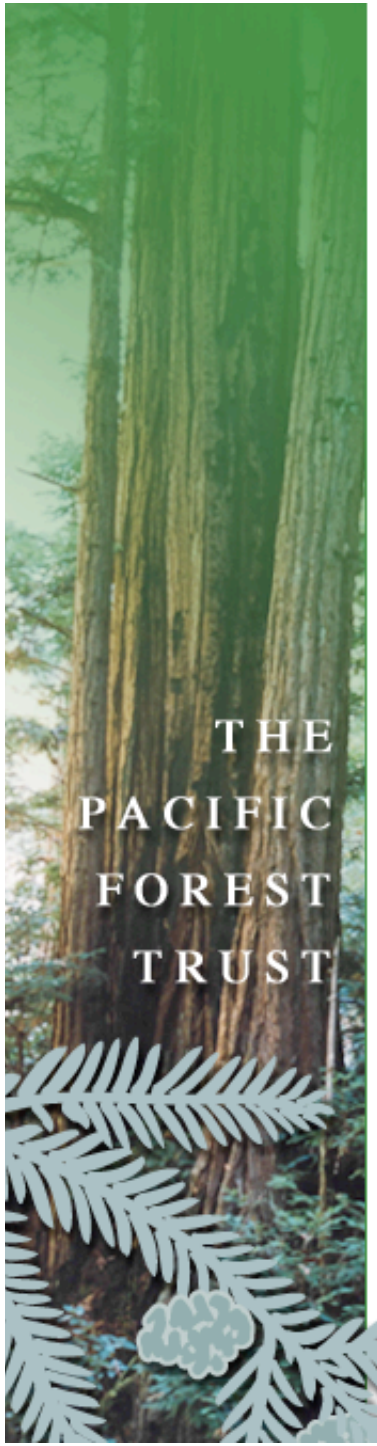
Generalized forest carbon stores over time for U.S. forests

By harvesting less than growth annually, we increase volume of both timber and carbon, restoring inventory and older age classes.



Van Eck Forest Project Comparison of Results





Forest Carbon Stores

HOW CARBON DIOXIDE FLOWS IN FORESTS:
STORES, EMISSIONS & REDUCTIONS

Forests Grow and Store CO_2

CO_2 Storage in the Forest
90% in trees and woody material
10% in organic soil

Trees and other forest vegetation grow in height and diameter by absorbing CO_2 from the atmosphere and transforming it to wood (carbon) through photosynthesis

Emissions & Transfers

CO_2 Emissions & Transfers from Typical Clear-Cut Timber Harvest

32.5% released into atmosphere within 5 years as fine debris decays

32.5% transferred into wood products (2%/year avg. decay)

35% remains as stumps, roots and coarse debris decaying over time

CO_2 Emissions from Forest Loss & Development

After final timber harvest and soil disturbance, potential for future carbon stores is minimal

Reductions

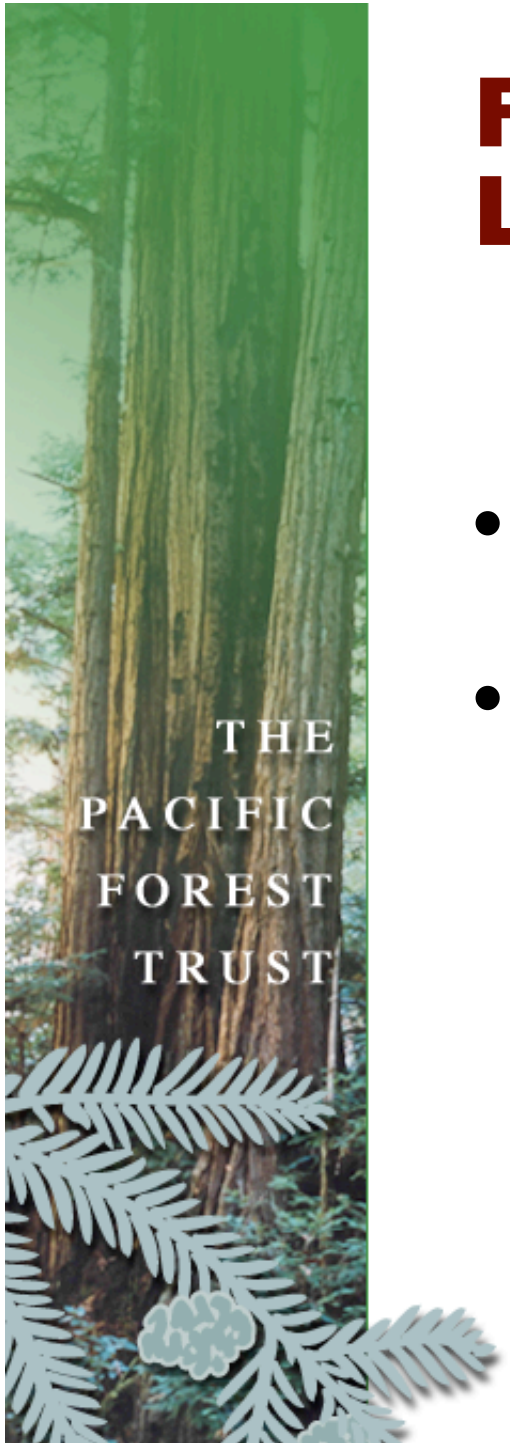
CO_2 Emissions Reductions Strategies for Forests

Prevent forest loss

Conserve and manage for older forests

Restore forests where they have been converted to other uses

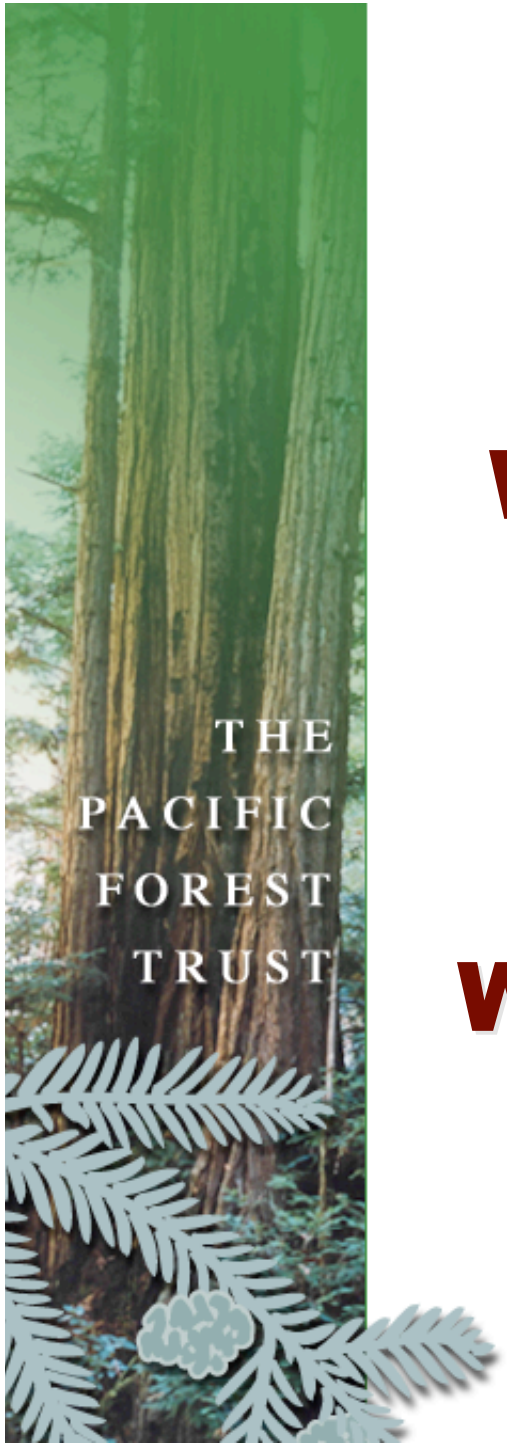
Use wood products in place of more CO_2-intensive building materials and energy sources



Financial Outcomes for Landowner

- Carbon Emissions Reductions: 07 sales expected $900-1,000 M
- Costs $50-60,000

CER sales additional to return from timber, conservation easement



Co-Benefits of Forests & Climate

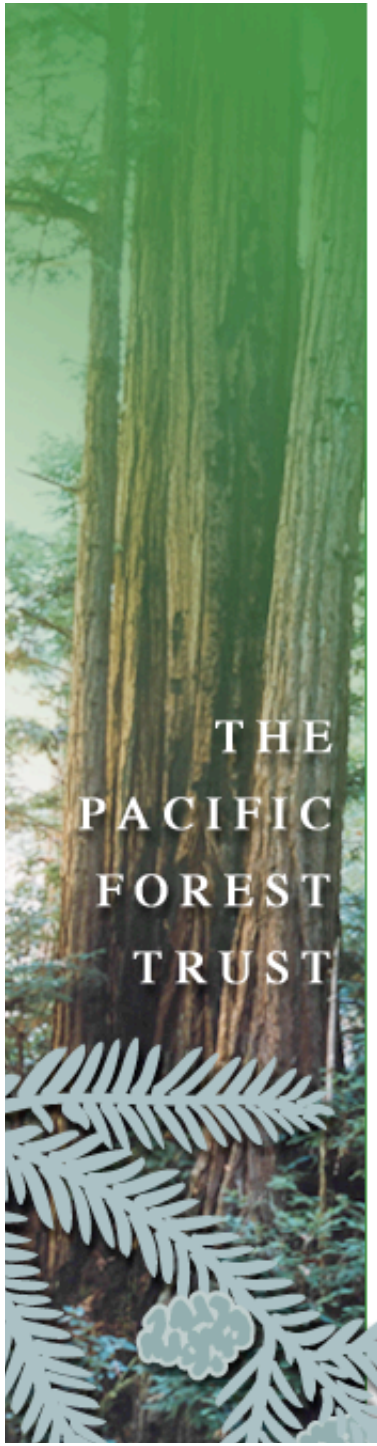
Forests managed sustainably for their climate benefits also yield significant gains for:

Wood

Water

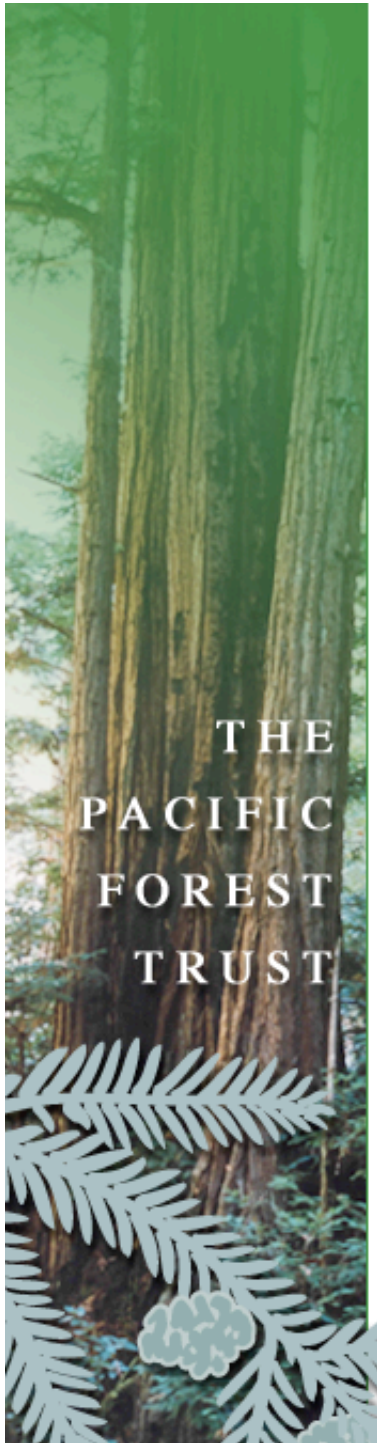
Wildlife

Well-Being



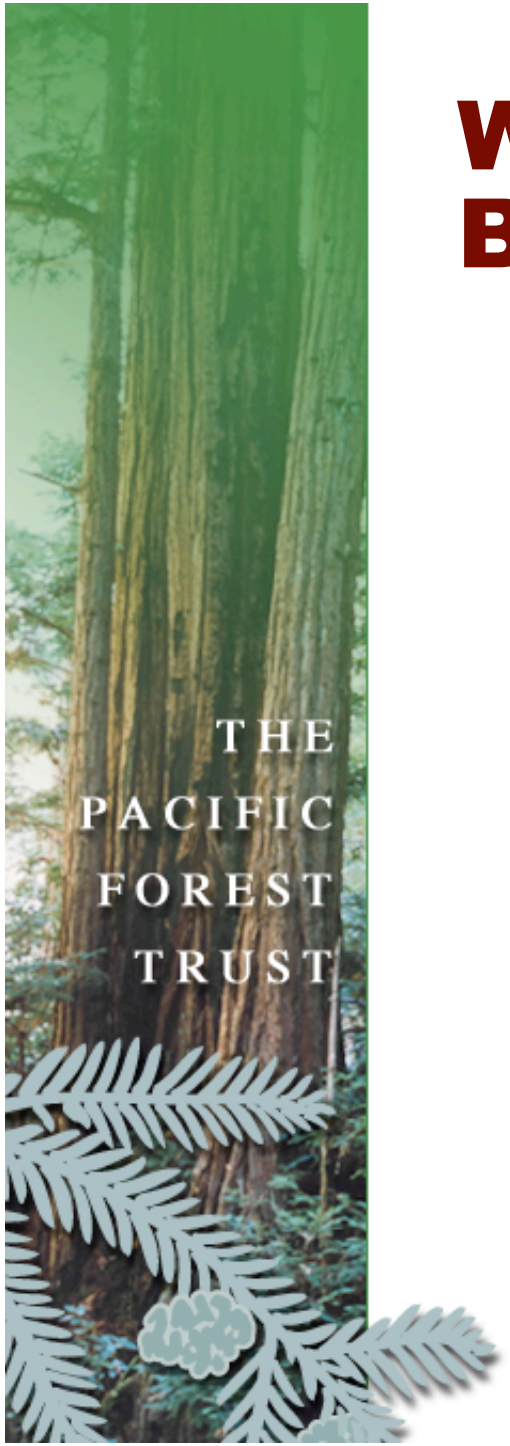
Other benefits at Van Eck Forest

- A place to work
- A place to live, too



What do Buyers Want? Global Norms for Projects

- Baselines/Additionality
  - Above existing law: forestry, land use
- Permanence
  - Conservation easements tool
- Avoiding/Minimizing "Leakage"
  - Entity-wide reporting
- Third Party verification
  - Licensed verifiers, state backing
- Environmental co-benefits
  - Native forests, sustainability
- Rigorous Standards
  - Stock change accounting, projections
- Annual monitoring & reporting



What Accounting Needs, Buyers also Want

The more certainty, the better. Accounting standards provide equivalency with other sectors.

CCAR system provides this.

Net Net

- Significant, durable, accountable climate benefits
- Cost Benefit Ratio pretty darn good
- Protocols feasible, useful
- Keep the basic structure (From Word to Word 1.1)
- Room for improvements
- Maintain California leadership

We'd do it again, and plan to!

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